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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/225,687	01/06/1999	RANDELL L. MILLS	62-226-1	2097

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EXAMINER

KALAFUT, STEPHEN J

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/225,687

Applicant(s)

MILLS, RANDELL L.

Examiner

Stephen J. Kalafut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-84 and 99-104 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-84 and 99-104 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01 March 2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 June 2005 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-84 and 99-104, for reasons of record, are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. See paper no. 3, pages 5-7.

Claims 1-84 and 99-104, for reasons of record, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. See paper no. 3, pages 7-12.

Applicant's arguments filed 01 March 2006 have been fully considered but they are not persuasive.

Applicant argues (page 22) that the office has not identified a single physical law that has been violated. The alleged transition of hydrogen to a state lower than the principal quantum

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number equaling 1 (the “ground state”) would be such a violation, because the “ground state” is the minimum amount of energy which can be exhibited by the electron of a hydrogen atom. This is shown by Krieg, cited on page 12 of the IDS of 01 March 2006. Applicant’s alleged “new ground state”, where the orbital speed of the electron is limited by the speed of light, is based on Lorenz contraction, which can only occur in an inertial reference, *i.e.*, one which is not accelerating. An electron moving around an atomic nucleus, even if orbiting at a constant speed, is changing direction, and is therefore changing velocity, and thus undergoing acceleration. (Since velocity is a vector quantity, a change to either its magnitude or to its direction constitutes acceleration.)

Applicant argues (page 21) that the “Committee” has not found fault with his data on “legitimate scientific grounds”, but has only nitpicked on “theoretical grounds”. This is not persuasive because theoretical grounds are not distinct from scientific grounds, but are a subset thereof, since theory is an aspect of science.

Applicant argues (page 28) that he does not need to understand the theoretical basis for his invention. This does not mean that an applicant is free to put forth any theory he wishes. Any theory alleged by an applicant (not just the present applicant, but *any* applicant) has to make sense according to accepted scientific principles.

Applicant argues (starting on page 66) that independent third parties have generated data supporting his alleged lower states of hydrogen. This is not persuasive for reasons set forth in the attached Appendix, pages 1-26. Moreover, some of the articles cited in the IDS not only do not support applicant’s theory, but also find drawbacks to it. For example, Cvetanovic *et al.* (cited on page 4 of the IDS of 01 March 2006), on page 7, list several “experimental facts” which

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cannot be explained by applicant's alleged mechanism for Balmer line broadening, called the "resonance transfer model", abbreviated as "RTM". The article entitled "Attempt to Observe Excess Heat in a Ni-H₂O-K₂CO₃ Electrolysis System" (cited on page 12 of the IDS) concluded with "Our Mills experiment showed no detectable sign of excess heat." Rathke, in "A Critical Analysis of the Hydrino Model" (cited on page 12 of the IDS), finds applicant's theory ("CQM") "mathematically inconsistent in several points" (page 5, first full ppg.), and recommends that experimental evidence put forth in favor of the existence of hydrinos should be reconsidered for interpretation in terms of conventional physics" (page 6, just above the footnotes). According to Barth, in "Bigger Than Fire?" (cited on page 11 of the IDS), applicant overlooks the electromagnetic attraction between the nucleus and the electron, and does not use Planck's constant (starting at page 42, right column).

Applicant alleges a conflict of interest on the part of Dr. Bernard Souw, who has authored Appendices, and has been consulted during the examination of the present application, since Dr. Souw's consulting firm, BMS, would be a competitor of applicant's company, Blacklight. Applicant only shows that BMS has done consulting work in two fields in which applicant believes his invention to be applicable. However, these fields are microwave plasmas and CVD analysis, which do not necessarily require the use of hydrinos, while applicant's invention (in the present application) deals with methods of releasing explosive energy involving the alleged hydrinos. Even if these were competing fields, Dr. Souw would have the option of either withdrawing from working on the present application, or refraining from working on the competing subject matter outside of the PTO.

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Applicant argues (page 138) that he has over 60 peer-reviewed articles. The fact that some may have passed this process does not nullify the fact that others have not. The failure to pass or undergo peer review is only one of several reasons why applicant's evidence is unpersuasive. Other reasons have been shown in previous Office actions or are stated below.

The attachments 88, 105 and 108-114, submitted with the IDS of 01 March 2006, have been found unpersuasive for the following reasons:

Attachments 105, 108, 109 and 111-114 have not been peer-reviewed, and thus do not (yet) have the credibility that peer-reviewed articles have, as explained by the Appendix to the Office action of paper no. 20050207, Part I, sections (A)(a) and (A)(b).

Attachments 88, 105, 108-110, 113 and 114 postulate the hydrino as an explanation for phenomena not necessarily related thereto, as explained in the Appendix to the 20050207 action, Part I, sections (A)(c) and (A.1).

Attachments 108, 111 and 112 contain data that is inconsistent with applicant's theory. Applicant takes the known formula for energy states for a hydrogen atom, $E = -13.6 / n^2$ eV, where "n" is the principal quantum number, and for this number uses fractions, where $n = 1/p$, where "p" is an integer, and "E" is the binding energy of the electron. Thus, the formula becomes $E = -13.6 / (1/p)^2$ eV. When $p=1$, the hydrogen atom is in its well-known "ground state". When "p" is 2 or more, the hydrogen is allegedly in an energy state below the "ground state", such as atom being called a "hydrino". By setting "p" equal to the integers 1 through 5, the predicted energy levels would be -13.6 (1) eV, -13.6 (4) eV, -13.6 (9) eV, -13.6 (16) eV, and -13.6 (25) eV. Applicant expresses these values in terms of a variable called "q", so that for the first five energy levels, "q" equals -1, -4, -9, -16 and -25. The differences between one level of

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“p” and the next level may be expressed as 3, 5, 7 and 9. The differences between two energy levels, corresponding to a difference in “p” of 2, may be expressed as “q” equaling 8, 12 and 16. A value of “q” equaling 4 would be theoretically possible, going from “p” equaling zero, which would represent an unbound electron ($n=\infty$), to “p” being 2. Thus, applicant’s formula predicts emissions of energy corresponding to values of “q” equaling 1, 3, 4, 5, 7, 8, 9, 11, 12, 13, 15 and 16. Applicant’s data, however, shows “q” equaling 1, 2, 3, 4, 6, 7, 8, 9 or 11. Comparing these to the theoretical values of “q” up to 11, the data shows “q” equaling 2 and 6, precluded by applicant’s formula, while omitting the predicted value of 5. It is noted that applicant makes numerous references to “q” equaling 2 (corresponding to a value of 27.2 eV), a value which nowhere fits into his formula.

Any numbered attachments submitted with the IDS of 01 March 2006 have already been made of record in earlier prior art statements.

Please see also the Appendix attached to the present office action.

This is a RCE of applicant's earlier Application No. 09/225,687. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjk


STEPHEN J. KALAFUT
PRIMARY EXAMINER
GROUP 1700